

SALTON SEA RESTORATION

NORTH LAKE CONCEPT

Genesis

In late 2002, US Filter proposed that restoring the Salton Sea be linked to providing water for metropolitan California. They proposed that rivers flowing into the Salton Sea be desalinated and the "product" water be sold to urban areas. The profits from such a sale could, in turn, help fund dike/dam construction in the Salton Sea to manage water quality and stabilize the lake's level.

Description

Out of the initial US Filter concept, a new idea emerged that added water quality and habitat improvements to the water supply/dike mix. The North Lake idea preserves a marine lake environment in the north basin while maintaining and creating extensive shallow water areas in the south for waterbirds and other wildlife. All areas would benefit from water quality improvements that would reduce nutrients and other constituents before they are conveyed into the lake and habitat areas, thereby significantly reducing odors and fish kills.



The plan opens up previously flooded areas for expansion of geothermal energy plants. The geothermal plants provide an environmental friendly source of power for the state and are a huge stimulus to the Imperial Valley economy.

The plan also has other important socioeconomic and employment implications for the Imperial Valley. Current water transfer strategies include a requirement that Imperial Irrigation District (IID) farmland be fallowed for up to 15 years to maintain the salinity of the Sea. The North Lake plan would eliminate the need for IID fallowing as soon as the Mid-Sea Dam becomes operational. This would protect the livelihoods of farm workers and others that rely upon IID agriculture.

The concept relies on squeezing the maximum use out of every gallon of water flowing into the region. Wetlands would be used to help cleanse New and Alamo river water. Agricultural "waste" water would be desalinated for sale or exchange to urban

users. "Waste" water from the desalination plant would be used to sustain a healthy lake. Outflow from the lake would be used to provide wetlands habitat. Finally, outflows from the habitat areas would be used to create a salt crust that would prevent dust generation from exposed seabed.

Cost

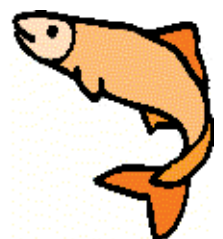
The total cost of the project could be close to \$2 billion, including constructing dams, wildlife preserves and one of the world's largest desalination plants. It is proposed that many of these costs would be recouped from the sale of water at a cost of about \$470/acre-foot. That is about half of the cost of desalinating ocean water, but about \$200 more per acre-foot than transferring water from the Imperial Valley and not improving the Salton Sea. Who bears which cost would be the subject of negotiation and discussion between water districts, state and federal governments, and others.

How Much Water Could Be Generated?

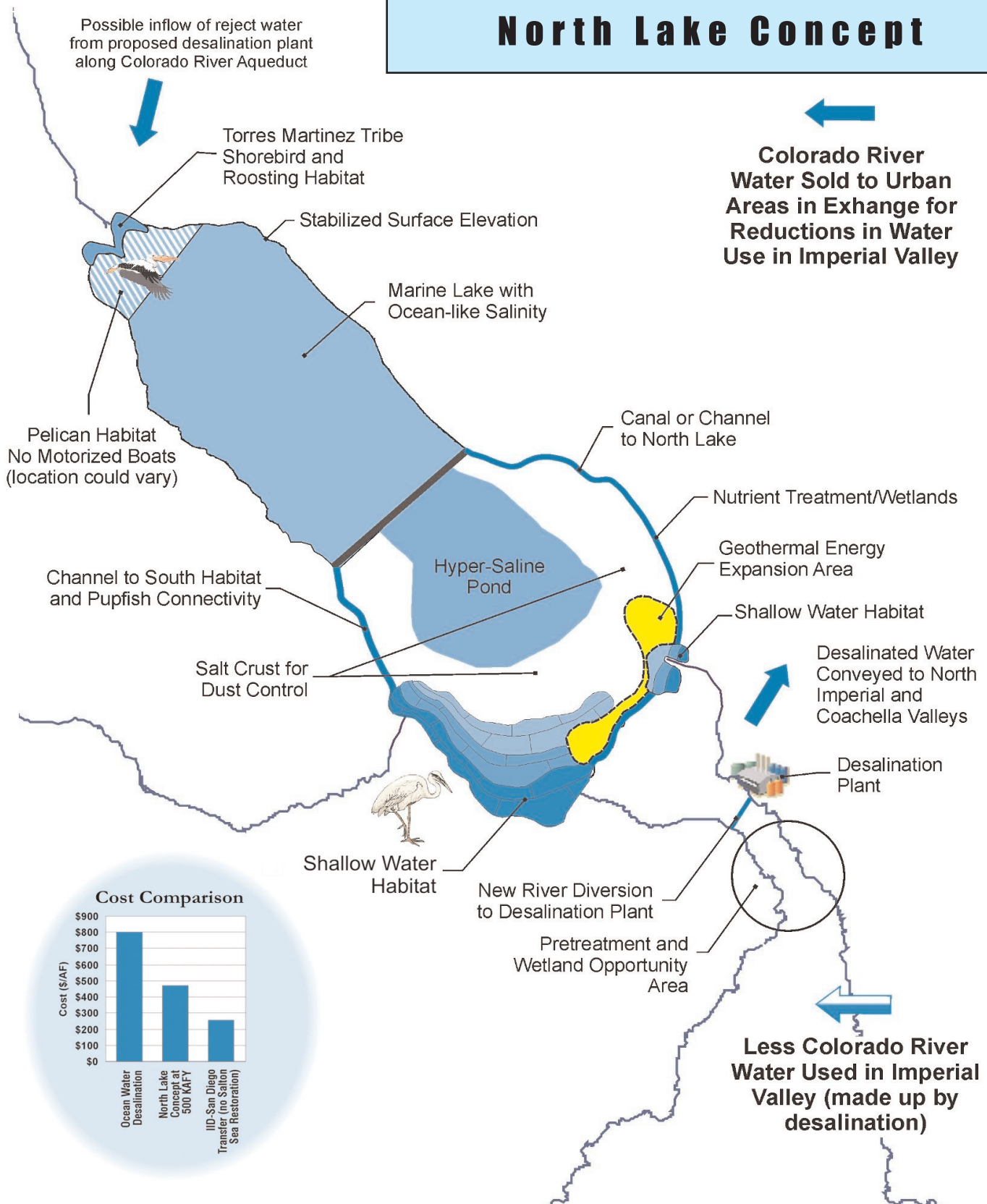
A lot. At least 200,000 acre-feet of water could be generated, or enough to provide water for 1 to 2 million people. If current plans to transfer water from Imperial Irrigation District to San Diego falter or phase out, this concept could make up the difference, i.e. another 300,000 acre feet. Other projects which result in more "waste" water flowing into the Sea could free up even more water for sale to urban areas.

Next Steps

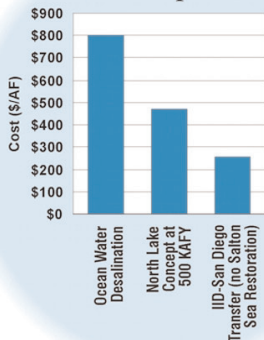
On April 3, 2003 the Salton Sea Authority Board endorsed the North Lake concept. While acknowledging that the concept is not a magic bullet, the Board viewed the North Lake plan as a promising potential solution to problems at the Sea. Work to be done includes addressing concerns about the foundation conditions for dam construction, selenium concentrations, and the health of the new fishery must be addressed. Major engineering, planning and public outreach efforts will occur during the balance of 2003 to help the Salton Sea Authority and its partners fully consider, communicate and further develop the concept and move restoration forward.



North Lake Concept



Cost Comparison



SALTON SEA RESTORATION PROJECT

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